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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/622,693	07/21/2003	Yusuke Akiyama	1190-0572P	4401
2292	7590	06/09/2005	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			WILLIAMS, JOSEPH L	
			ART UNIT	PAPER NUMBER
			2879	

DATE MAILED: 06/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

**Office Action Summary**

Application No.

10/622,693

Applicant(s)

AKIYAMA ET AL.

Examiner

Joseph L. Williams

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**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --****Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 July 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 7/21/03.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 6-9, 11-14, and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Yuichi et al. (JP 07-230772), of record by Applicant.

Regarding claim 1, Yuichi ('772) teaches in Drawings 1 and 2, a tensioned mask structure (5) for a color CRT, the structure including a color-selecting mask (53) that is formed with a plurality of electron beam passing holes (54) therein, a mask frame (122) on which the color-selecting mask is mounted, and a vibration-attenuating mechanism (no number but attached near the end of frame (122)) in contact with the color-selecting mask to damp vibration of the color-selecting mask, wherein an effective mask area of the color-selecting mask comprises: a slit region having a plurality of long narrow elements that extend in a vertical direction of a screen of the CRT and are aligned to define slit-like holes between adjacent long narrow elements; and a slot region having a

plurality of slot-like holes shorter than the slit-like holes, the slot-like holes extending in the vertical direction; wherein said slit region formed in an area except a left peripheral portion and a right peripheral portion of the effective mask area.

Regarding claim 2, Yuichi ('772) teaches the slit-like holes are defined by forming bridges (51) that connect adjacent long narrow elements at predetermined intervals, the bridges near a boundary between the slit region and the slot region being formed in accordance with a shape of slit region such that a substantially straight boundary is defined between the slit region and the slot region.

Regarding claim 3, Yuichi ('772) teaches wherein the slit-like holes are defined by forming bridges that connect adjacent long narrow elements at predetermined intervals, the bridges adjacent to a boundary between the slit region and the slot region being formed in accordance with the shape of the slit region to define the boundary such that each of the bridges is displaced ahead of a preceding one in the vertical direction of the screen.

Regarding claim 4, Yuichi ('772) teaches the slit region is symmetrical with respect to a horizontal center line of the effective mask area and with respect to a vertical center line of the effective area.

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Regarding claim 6, Yuichi ('772) teaches the slit region has a horizontal length in the range of 5 to 95% full horizontal length the effective mask area.

Regarding claim 7, Yuichi ('772) teaches the slit region has a vertical length in the range of 20 to 100% of a full vertical length of the effective mask area.

Regarding claim 8, Yuichi ('772) teaches the slot-like holes are defined by forming bridges that connect adjacent long narrow elements at predetermined intervals.

Regarding claim 9, Yuichi ('772) teaches each of the slot-like holes has opposing perimeters that extend substantially in the vertical direction and a perimeter an angle with the horizontal direction.

Regarding claim 11, Yuichi ('772) teaches color CRT having a face panel, a funnel, and a neck which are formed in one piece construction, the color CRT incorporating a tensioned color-selecting mask according to Claim 1 (see Drawing 3).

Regarding claim 12, Yuichi ('772) teaches a tensioned mask (5) structure for a color CRT, the structure including a color selecting mask (53) formed with a plurality of electron beam passing holes (54), a mask frame (122) on which the color-selecting mask is mounted, and a vibration-attenuating mechanism (no number, but near the end of frame 122) in contact with the color-selecting mask to damp vibration of the color-

selecting mask, wherein the color-selecting mask comprises an effective mask area that includes a slot region (the peripheral edges of the mask) having slot-like holes and a mixture region having slit-like holes and slot-like holes (located at the top and bottom of the mask area); wherein the slit-like holes are defined between adjacent ones of a plurality of long narrow elements that extend in a vertical direction of a screen of the CRT; and wherein the slot-like holes are shorter than the slit-like holes and extend in the vertical direction; wherein the mixture region formed area except a left peripheral portion and a right peripheral portion of the effective mask area.

Regarding claim 13, Yuichi ('772) teaches the slit-like holes are defined by forming bridges that connect adjacent long narrow elements at predetermined intervals, the bridges being formed to define a substantially straight boundary between the mixture region and the slot region.

Regarding claim 14, Yuichi ('772) teaches the slit-like holes are defined by forming bridges that connect adjacent long narrow elements at predetermined intervals, the bridges adjacent to a boundary between the region and the slot region being formed in accordance with a shape of the slit region define the boundary such each of the bridges is displaced ahead of a preceding one in the vertical direction of the screen.

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Regarding claim 16, Yuichi ('772) teaches color CRT having a face panel, a funnel, and a neck which are formed in one piece construction, the color CRT incorporating a tensioned color-selecting mask according to Claim 12 (see Drawing 3).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5, 10, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yuichi et al. (JP 07-230772) in view of Bae et al. (US 6,756,724 B2), both of record by Applicant.

Regarding claim 5, Yuichi ('772) teaches all of the claimed limitations except for the vibration-attenuating mechanism including at least two springs provided on the mask frame; and at least one damper wire mounted in contact with the color-selecting mask between the two springs so that the damper wire is held taut across the effective mask area.

Further regarding claim 5, Bae ('724) teaches in figure 1 a tension mask for a color CRT comprised of, in part, a vibration-attenuating mechanism including at least two springs provided on the mask frame; and at least one damper wire mounted in contact with the color-selecting mask between the two springs so that the damper wire

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is held taut across the effective mask area for the purpose of reducing vibrations within the CRT and thus improve the picture quality.

Hence it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the vibration-attenuating mechanism of Bae in the color CRT of Yuichi for the purpose of reducing vibrations within the CRT and thus improve the picture quality.

Regarding claim 10, Bae ('724) teaches wherein each of the slot-like holes has a constriction defined by projections that project toward each other from adjacent long narrow elements (see figure 9).

The reason for combining is the same as for claim 5 above.

Regarding claim 15, Yuichi ('772) teaches in figure 1 a tension mask for a color CRT comprised of, in part, a vibration-attenuating mechanism including at least two springs provided on the mask frame; and at least one damper wire mounted in contact with the color-selecting mask between the two springs so that the damper wire is held taut across the effective mask area

The reason for combining is the same as for claim 5 above.




**Contact Information**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph L. Williams whose telephone number is (571) 272-2465. The examiner can normally be reached on M-F (6:30 AM-3:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar D. Patel can be reached on (571) 272-2457. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Joseph L. Williams  
Primary Examiner  
Art Unit 2879